

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method of processing dynamically
generating Hypertext Markup Language (HTML) elements using objects in a
computer system, comprising the steps of:

defining object classes for each of said elements of said HTML;

creating an HTML template, said HTML template having a statement that
defines one of said HTML elements;

identifying ~~the~~ an object class associated with said one of said HTML
elements;

obtaining an object tree having a plurality of hierarchically organized
objects, said object tree comprising ~~creating~~ an instance of said object class, said
instance containing data and methods for processing said one of said HTML
elements; and

transmitting a message to said instance to dynamically generate a
plurality of HTML statements ~~perform an operation~~ using the data and methods
of said instance.

2. (NEW) In a computing system, a method of dynamically generating web page content comprising:

obtaining a template containing a definitional statement;

identifying an object corresponding to said definitional statement;

obtaining an object tree of hierarchically organized object instances, said object tree comprising an instance of said object, wherein a structure of said object tree is determined at runtime; and

generating a web page element based on said definitional statement using said instance of said object.

3. (NEW) The method of claim 2 wherein said structure of said object tree comprises a root level and a plurality of descendant levels.

4. (NEW) The method of claim 3 further comprising:

activating said root level of said object tree; and

transmitting a message traversing said object tree to each of said plurality of descendant levels to generate a plurality of web page elements.

5. (NEW) The method of claim 3 further comprising:

executing one or more procedures to cause one or more modifications to said object tree.

6. (NEW) The method of claim 5 wherein said one or more modifications include a modification of one or more properties of said object instances.

7. (NEW) The method of claim 2 further comprising processing a plurality of definitional elements in said template as a group, said processing comprising:

creating a plurality of group element objects corresponding to a plurality of group elements;

obtaining a group object;

associating said plurality of group element objects with said group object;

said group object forwarding a message to each of said group element objects; and

said plurality of group element objects processing said message.

8. (NEW) The method of claim 7 further comprising:

initializing properties of said group object and said group element objects using a plurality of property definitions contained in a declaration, wherein said declaration contains definitional information; and

associating a plurality of new group element objects with said group object using a plurality of object definitions contained in said declaration.

9. (NEW) The method of claim 7 wherein said plurality of definitional elements have a plurality of occurrences as a group within said template, and wherein said plurality of group element objects generate a block of web page elements for each of said plurality of occurrences.

10. (NEW) The method of claim 2 further comprising:
retrieving data from an external source; and
generating said web page element using said data.

11. (NEW) The method of claim 10 wherein said external source is a database management system.

12. (NEW) The method of claim 10 wherein said retrieving comprises:
obtaining an object having a plurality of properties and methods; and
writing said data from said external source into said plurality of properties of said object.

13. (NEW) A computer program product comprising:
- a computer readable medium having computer program code embodied therein for dynamically generating Hypertext Markup Language (HTML) documents, said computer program code configured to cause a processor to perform a plurality of steps comprising:
- obtaining an HTML template, said HTML template having a statement that defines an HTML element;
 - identifying an object class associated with said HTML element;
 - creating an instance of said object class, said instance comprising data and one or more methods for processing said HTML element; and
 - transmitting a message to said instance of said object in order to dynamically generate an HTML statement using said data and said one or more methods of said instance.

14. (NEW) The computer program product of claim 13 wherein said computer program code configured to cause a processor to identify said object class comprises computer program code configured to cause a processor to perform a plurality of steps comprising:

creating a mapping between said HTML element and said object class;
parsing said HTML template to identify said HTML element defined by said statement; and
identifying, using said mapping, said object class associated with said HTML element.

15. (NEW) The computer program product of claim 14 wherein creating said mapping further comprises attributing a name to said object class and said HTML element.

16. (NEW) The computer program product of claim 14 wherein creating said mapping further comprises creating a table, said table having an entry comprising a first name attribute associated with said HTML element and a second name attribute associated with said object class.

17. (NEW) The computer program product of claim 13 further comprising computer program code configured to cause a processor to perform a plurality of steps comprising:

identifying a second object class associated with a second HTML element;
creating an instance of said second object class associated with said second HTML element, said instance of said second object class containing data and methods for processing said second HTML element; and
transmitting said message to said instance of said second object class to process information received in a client request.

18. (NEW) The computer program product of claim 17 wherein said second object class comprises a procedure for modifying the properties of said second instance using data retrieved from an external data source.